



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,949	10/10/2000	Winand D'Souza	367.39104X00	2913

20457 7590 04/26/2004

ANTONELLI, TERRY, STOUT & KRAUS, LLP  
1300 NORTH SEVENTEENTH STREET  
SUITE 1800  
ARLINGTON, VA 22209-9889

EXAMINER

D AGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
2683	13

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/684,949

**Applicant(s)**

D'SOUZA, WINAND

**Examiner**

Stephen M. D'Agosta

**Art Unit**

2683

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1-30-04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8 and 14 (added)</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The examiner notes that the 10-9-00 was a Federal Holiday and the case was filed correctly on 10-10-00.

### ***Information Disclosure Statement***

The two information disclosure statements (IDS) submitted on 10-10-00 and 5-7-03 are in compliance and accordingly, the information disclosure statement is being considered by the examiner.

### ***Preliminary Amendment***

The preliminary amendment has been received and the rejection below is based on the amended claims.

### ***Drawings***

The drawings were received on 10-10-2000 and have been reviewed by the draftsman and examiner.

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 3, 5-7 and 12, 15 and 17** rejected under 35 U.S.C. 102(b) as being anticipated by Hawker et al. WO-97/47117 (hereafter Hawker).

As per **claims 1 and 7**, Hawker teaches a portable (telecommunications) device (figure 1) comprising

A housing (figure 1, #12) having a first surface with an outlet for the egress of an acoustic signal when in a loudspeaker mode (figure 2, #46) and a second surface with an outlet for the egress of an acoustic signal when in the earpiece mode (figure 1, #20)

An electro-acoustic transducer located within the housing for converting an electrical signal input to the transducer into an acoustic signal, the transducer being operable to output acoustic signals when in the loudspeaker mode or the earpiece mode, the audio path between the transducer and the outlet for the egress of an acoustic signal when in the loudspeaker mode being less attenuated than the audio path between the transducer and the outlet for the egress of an acoustic signal when in the earpiece mode (page 6, L30-36 and page 7, L4-30).

As per **claim 3**, Hawker teaches claim 1 further comprising an amplifier for amplifying the electrical signal prior to inputting to the transducer and a gain control for controlling the gain of the amplifier, the gain control being operable to increase the gain of the amplifier when the device is to operate in a loudspeaker mode relative to the gain of the amplifier when the gain is in an earpiece mode (page 6, L30-36 and page 7, L4-30).

Art Unit: 2683

As per **claims 5 and 12**, Hawker teaches claim 1/3 and that the output level as a function of earpiece or loudspeaker operation "must fall within a certain range" and that his invention "employs appropriate amounts of electronic equalization, ie. shaping the frequency response electronically, to achieve the required amplifier output over the desired frequency range" (page 7, L4-24) [eg. wherein the difference in gain between the two modes is around 30db].

As per **claims 6, 15 and 17**, Hawker teaches claim 1/3/5 wherein the device is a portable communication device (eg. cell phone, figure 1).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2, 8, 11 and 14** rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker in view of Umemoto et al. US 5,379,338 (hereafter Umemoto).

As per **claim 2**, Hawker teaches claim 1 **but is silent on** an attenuator is provided between the transducer and the outlet for the egress of the acoustic signal when in earpiece mode.

Hawker does teach an audio amplifier that is increased to raise the level/lower the level of the audio sufficiently to allow the user to operate in either handsfree or earpiece mode (page 6, L30-36). So Hawker chooses to use a variable audio amplifier while the applicant chooses to use an attenuator to vary the amount of audio output. Since the use of an attenuator is well known, one skilled in the art would either use a variable amplifier or an attenuator to vary the amount of audio amplification.

The examiner notes that that attenuators/variable amplifiers are well known and would be used by one skilled in the art to provide the proper signal levels between the

Art Unit: 2683

transducer and earpiece output (ie. to raise/lower the volume, increase signal levels, etc.). The examiner puts forth that that one skilled would not send the same signal to both the loudspeaker output and earpiece output since one requires a louder signal/output to project to a large area while the other (earpiece mode) requires a lower signal/output. The attenuator can be an active/passive component that allows one signal to be generated and is either routed around the attenuator (for loudspeaker) and/or is routed to the attenuator prior to outputting to the earpiece. **Umemoto** teaches two places for use -- the in-a-car mode or the field mode -- and three or more types of the using space mode may be used to cope with three or more types of using space with different acoustic characteristics. Furthermore, while, in the above embodiments, a variable resistor has been employed as varying means for varying the level of the speech signal, the varying means may be other elements such as a variable attenuator, a variable amplifier, a combination of an amplifier and a variable resistor, and a combination of an amplifier and a variable attenuator (C18, L1-15).

It would have been obvious to one skilled in the art at the time of the invention to modify Hawker, such that an attenuator/variable amplifier is used, to provide proper signal levels between the transducer and earpiece output.

As per **claim 8**, Hawker in view of Umemoto teaches claim 1/2 further comprising an amplifier for amplifying the electrical signal prior to inputting to the transducer and a gain control for controlling the gain of the amplifier, the gain control being operable to increase the gain of the amplifier when the device is to operate in a loudspeaker mode relative to the gain of the amplifier when the gain is in an earpiece mode (page 6, L30-36 and page 7, L4-30).

As per **claim 11**, Hawker in view of Umemoto teaches claim 2 and that the output level as a function of earpiece or loudspeaker operation "must fall within a certain range" and that his invention "employs appropriate amounts of electronic equalization, ie. shaping the frequency response electronically, to achieve the required amplifier output over the desired frequency range" (page 7, L4-24) [eg. wherein the difference in gain between the two modes is around 30db].

As per **claim 14**, Hawker in view of Umemoto teaches claim 2 wherein the device is a portable communication device (eg. cell phone, figure 1).

**Claims 4, 10, 13 and 16** rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker in view of Shimazaki US Patent 5,493,690 (hereafter Shimazaki).

As per **claims 4 and 10** Hawker teaches claim 1/3 **but is silent on** including a first housing and a second housing coupled together in a moveable manner, the device further comprising a detector for detecting the position of one housing relative to the other and for operating the gain control switch accordingly.

Cellular phones designed as two-piece folding units are well known in the art and Hawker teaches a terminal that controls the gain of the audio output based on proximity or manual switch (page 7, L25-30).

Shimazaki teaches a foldable portable telephone (title and figure 1b) which uses a detection circuit to detect an open or closed condition of a cover relative to a body section (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Hawker, such that his cell phone is a two-piece housing with a detector to detect the position of one housing relative to another, so that the phone can anticipate whether or not to provide earpiece/handsfree operation based upon how the phone is positioned (ie. transmit output to loudspeaker if cover is closed and earpiece if cover is open).

As per **claim 13**, Hawker in view of Shimazki teaches claim 4 and that the output level as a function of earpiece or loudspeaker operation "must fall within a certain range" and that his invention "employs appropriate amounts of electronic equalization, ie. shaping the frequency response electronically, to achieve the required amplifier output over the desired frequency range" (page 7, L4-24) [eg. wherein the difference in gain between the two modes is around 30db].

As per **claim 16**, Hawker in view of Shimazaki teaches claim 4 wherein the device is a portable communication device (eg. cell phone, figure 1).

Art Unit: 2683

**Claim 9** rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker in view of Umemoto as applied to claim 2 and further in view of Shimazaki.

As per **claim 9**, Hawker teaches claim 2 **but is silent on** including a first housing and a second housing coupled together in a moveable manner, the device further comprising a detector for detecting the position of one housing relative to the other and for operating the gain control switch accordingly.

Cellular phones designed as two-piece folding units are well known in the art and Hawker teaches a terminal that controls the gain of the audio output based on proximity or manual switch (page 7, L25-30).

Shimazaki teaches a foldable portable telephone (title and figure 1b) which uses a detection circuit to detect an open or closed condition of a cover relative to a body section (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Hawker in view of Umemoto, such that his cell phone is a two-piece housing with a detector to detect the position of one housing relative to another, so that the phone can anticipate whether or not to provide earpiece/handsfree operation based upon how the phone is positioned (ie. transmit output to loudspeaker if cover is closed and earpiece if cover is open).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1. Hawker et al. US 6,002,949 teaches handset with single transducer.
2. Pehrsson et al. US 6,314,183 teaches portable communications device.
3. Gilbert US 5,615,259 teaches integral flap housing and switch actuator.
4. Equichi US 6,381,447 teaches foldable mobile phone.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.



Art Unit: 2683

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SMD  
3-29-04

A handwritten signature in black ink, appearing to be 'pe' or similar, located below the typed name and date.